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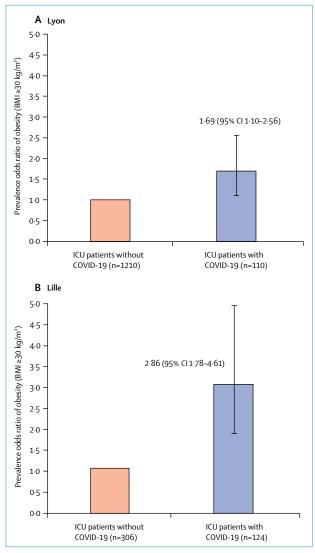


Figure 2: Prevalence of obesity in patients with critical COVID-19 compared with ICU patients without COVID-19 in the Lyon (A) and Lille (B) populations
Critical COVID-19 was defined as any case of COVID-19 requiring ICU admission.
ICU=intensive care unit.

the prevalence of obesity with the general population is based only on our sample of patients with COVID-19, and a population-based study would be needed to precisely assess the demographics of patients with COVID-19 with respect to the general population.

Given the dual pandemics of COVID-19 and obesity in high-income countries, our findings have major implications for the clinical care of patients with obesity and COVID-19, as well as for public health interest.

Further independent multicentre studies including longitudinal assessment of outcomes such as duration of hospitalisation and mortality are needed to confirm that obesity is a risk factor for severe COVID-19, and further analyses are planned on our datasets once follow-up is complete. These findings can help clinicians to better identify specific populations with higher risk of severe disease, which could lead to an increase in protective measures, proposal of serological screening for immunisation, and recommendation of a vaccination once available for people with obesity.

We declare no competing interests. This work was partially supported by grants from the European Commission (FEDER 12003944), Agence National de la Recherche (European Genomic Institute for Diabetes ANR-10-LABX-46), and Foundation Coeur et Arteres (FCA number R15112EE).

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- Zhu N, Zhang D, Wang W, et al. A novel coronavirus from patients with pneumonia in China, 2019. N Engl J Med 2020; 382: 727-33.
- 2 Chen N, Zhou M, Dong X, et al. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. Lancet 2020; 395: 507–13.
- 3 Shi Y, Yu X, Zhao H, Wang H, Zhao R, Sheng J. Host susceptibility to severe COVID-19 and establishment of a host risk score: findings of 487 cases outside Wuhan. Crit Care 2020; 24: 108.
- 4 Chen Q, Zheng Z, Zhang C, et al. Clinical characteristics of 145 patients with corona virus disease 2019 (COVID-19) in Taizhou, Zhejjang, China. Infection 2020; published online April 28. DOI:10.1007/515010-020-01432-5.
- Mahase E. Covid-19: most patients require mechanical ventilation in first 24 hours of critical care. BMJ 2020; 368: m1201.
- 6 Bhatraju PK, Ghassemieh BJ, Nichols M, et al. Covid-19 in critically ill patients in the Seattle region—case series. N Engl J Med 2020; published online March 30. DOI:10.1056/ NEJMoa2004500.
- 7 Simonnet A, Chetboun M, Poissy J, et al. High prevalence of obesity in severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) requiring invasive mechanical ventilation. Obesity (Silver Spring) 2020; published online April 9. DOI:10.1002/ oby.22831.
- 8 Lighter J, Phillips M, Hochman S, et al. Obesity in patients younger than 60 years is a risk factor for COVID-19 hospital admission. Clin Infect Dis 2020; published online April 9. DOI:10.1093/cid/ciaa415.
- 9 Caussy C, Wallet F, Laville M, Disse E. Obesity is associated with severe forms of COVID-19. Obesity (Silver Spring) 2020; published online April 21. DOI:10.1002/oby.22842.
- 10 Phua J, Weng L, Ling L, et al. Intensive care management of coronavirus disease 2019 (COVID-19): challenges and recommendations. Lancet Respir Med 2020; published online April 6. DOI:10.1016/52213-2600(20)30161-2.

Health care and mental health challenges for transgender individuals during the COVID-19 pandemic

As a medical and socially vulnerable group, transgender individuals face numerous health disparities

Published Online May 20, 2020 https://doi.org/10.1016/ 52213-8587(20)30182-0 and mental health problems.1 The coronavirus disease 2019 (COVID-19) pandemic brings international health concerns and devastating psychological distress on a global scale to many populations. Transgender individuals are now facing unprecedented difficulties with mental, physical, and social wellbeing, as well as difficulties accessing health care. Before the pandemic, there already existed many barriers to transgender individuals accessing health care, such as a shortage of specialised healthcare professionals; as a result, very few transgender individuals receive genderaffirming surgeries and hormone interventions, especially in lowincome and middle-income countries.2 As a marginalised group, inequalities faced by transgender individuals in policies and social aspects, such as legislated policies based on binary gender norms, could increase the risk of illness and mortality during the COVID-19 pandemic.3 In addition, to prevent the potential overload of health-care systems by COVID-19 cases, most hospitals have cancelled or postponed elective procedures to save resources. Thus, it is even more difficult for transgender individuals to access hormone interventions and genderaffirming surgeries.

Besides access to health care, it is also important to highlight mental health issues of transgender individuals. Previous studies showed that genderaffirming surgery was associated with reduced mental health problems.4 Because of the difficulties caused by COVID-19 discussed above, it is likely that transgender individuals are also facing challenging situations with regards to their mental health. In our transgender clinic, in Beijing, China, we found that difficulty in accessing hormone interventions was associated with high levels of anxiety and depression due to uncertainty about the availability of future treatments and struggles with maintaining unwanted gender identities during the COVID-19 pandemic.

We call for an inclusive assessment of the mental and physical health of transgender individuals that includes quality of life, physical functions, surgical complications, and hormonerelated health problems. These assessments could identify transgender individuals at a high risk of developing severe psychological or physical health problems. Early screening could help to provide timely interventions for symptoms that occur during the COVID-19 pandemic. Furthermore, we suggest that it is important to note that there are subgroup differences in transgender individuals' physical and mental health needs. After genderaffirming surgery, groups such as transgender women tend to have adverse outcomes of vaginoplasty, such as visceral injury, fistulas, vaginal prolapse, and pelvic floor disorders, which occur because of the complex nature of the gender reassignment and require long-term care after surgery.5 During the COVID-19 pandemic, transgender women might therefore face additional difficulties compared with transgender men.

To prevent detrimental consequences caused by barriers to health care when resources are scarce, governments should implement urgent solutions to ensure both prescription supply, such as hormones, and provide remote online physician counselling for transgender individuals. Hormone intervention requires lifelong medical support as the concentration of hormones and adverse events need to be carefully monitored.² In response to the ongoing COVID-19 pandemic, we suggest that governments, policy makers, and the private sector should actively consider the unprecedent difficulties and situation faced by transgender people when planning to address the healthcare crisis, and implement suitable strategies to help this minority group. Finally, it is important for healthcare systems to establish assessment screening and provide a monitoring service to ensure psychological wellbeing of this vulnerable population.

We declare no competing interests.

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- 1 The Lancet Diabetes & Endocrinology. Transgender health: access to care under threat. Lancet Diabetes Endocrinol 2018; 6: 427.
- 2 Zhu X, Gao Y, Gillespie A, et al. Health care and mental wellbeing in the transgender and gender-diverse Chinese population. Lancet Diabetes Endocrinol 2019; 7: 339-41.
- Perez-Brumer A, Silva-Santisteban A. COVID-19 policies can perpetuate violence against transgender communities: insights from Peru. AIDS Behav 2020; published online April 27. https://doi.org/10.1007/s10461-020-02880-7
- 4 Bränström R, Pachankis JE. Reduction in mental health treatment utilization among transgender individuals after gender-affirming surgeries: a total population study. Am J Psychiatry 2019; published online Oct 4. https://doi.org/10.1176/appi. aip.2019.19010080.
- Ferrando CA. Vaginoplasty complications. Clin Plast Surg 2018; 45: 361-68.

Maturity-onset diabetes of the young (MODY): a time to act

The Middle East and north Africa have the second highest prevalence of diabetes worldwide. According to the International Diabetes Federation, 14.8% of the adult population in Kuwait is estimated to have diabetes. Kuwait has also one of the highest incidences of type 1 diabetes in children worldwide. As a consequence of overlapping signs and symptoms, it can be expected that some patients who are currently diagnosed with type 1 diabetes or type 2 diabetes